UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,236	03/31/2004	Rhonda L. Childress	AUS920040117US1	8129

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EXAMINER
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ART UNIT	PAPER NUMBER
2144	

NOTIFICATION DATE	DELIVERY MODE
04/02/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ptonotifs@yeeiplaw.com

	Application No.	Applicant(s)
Office Action Summary	10/815,236	CHILDRESS ET AL.
	Examiner	Art Unit
	SAEED S. MIRZADEGAN	2144

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _10 January 2008_.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-20_ is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) _1-20_ is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on _10 January 2008_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All   b) ☐ Some * c) ☐ None of:
        1. ☐ Certified copies of the priority documents have been received.
        2. ☐ Certified copies of the priority documents have been received in Application No. _____.
        3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   This office action is in response to Applicant's amendment filed 01/10/2008.

Claims 1-20 are pending.

2.   Applicant's Amendments, (see Amendments to Drawings filed 01/10/2008) with

respect to Drawings have been fully considered and are persuasive. The Objections to

Drawings has been withdrawn.

3.   Applicant's arguments and amendments with respect to Claims 1-20 filed on

01/10/2008 have been carefully considered but they are not deemed fully persuasive.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and
> useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4.   Claims 9-16 are rejected under 35 U.S.C. 101 because The Claimed Invention is

directed to signals.

5.   As written, applicant is claiming "A computer readable medium encoded with a

computer program product that is operable with a data processing system". In the

disclosure, applicant further recites "Examples of computer readable media include

recordable-type media, such as a floppy disk, a hard disk drive, a RAM, CD-ROMs,

DVD-ROMs, and transmission-type media, such as digital and analog communications

links, wired or wireless communications links using transmission forms, such as, for

example, radio frequency and light wave transmissions (page 34, lines 15-21). In

essence the applicant is claming a non-statutory subject matter.

6.   In order for software claims to be statutory, they must be claimed in combination

with an appropriate medium and/or hardware to establish statutory category of invention

and enable any functionality to be realized as set forth in MPEP 2106.01.

Software, *per se*:

The claims lack the necessary physical articles or objects to constitute a machine or a
manufacture within the meaning of 35 USC 101. They are clearly not a series of steps
or acts to be a process nor are they a combination of chemical compounds to be a
composition of matter. As such, they fail to fall within a statutory category. They are, at
best, functional descriptive material *per se*.

Descriptive material can be characterized as either "functional descriptive material" or
"nonfunctional descriptive material." Both types of "descriptive material" are nonstatu-
tory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759.
When functional descriptive material is recorded on some computer-readable medium, it
becomes structurally and functionally interrelated to the medium and will be statutory in
most cases since use of technology permits the function of the descriptive material to be
realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed.
Cir. 1994)
Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a
computer-readable medium, in a computer, or on an electromagnetic carrier signal,
does not make it statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8 (noting that
the claims for an algorithm in *Benson* were unpatentable as abstract ideas because "the
sole practical application of the algorithm was in connection with the programming of a
general purpose computer.").

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness

under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating
   obviousness or nonobviousness.

7.   Claims 1, 6-9, 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Applicant Own Admitted Prior Art (APA) in view of Kiremidjian et al. (Kiremidjian)

US PG Pub. No. 2003/0229714, and further in view of Chidambaran et al.

(Chidambaran) US PG. Pub. No. 2005/0055446.

8.   The applied reference has a common assignee with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art

only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome

by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in

the reference was derived from the inventor of this application and is thus not an

invention "by another"; (2) a showing of a date of invention for the claimed subject

matter of the application which corresponds to subject matter disclosed but not claimed

in the reference, prior to the effective U.S. filing date of the reference under 37 CFR

1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and

reference are currently owned by the same party and that the inventor named in the

application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer

in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing

that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under

35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

9.   Regarding Claim 1, APA discloses a method in a data processing system, for

allocating service provider system resources to hosted applications, comprising:

determining whether a breach of a first SLA is imminent (IDS, AA, page 1, lines 22-25 &

page 5, lines 23-24); retrieving SLA information for the SLA (IDS, AA, page 3; lines 12-

14) determining a minimum penalty SLA based on the retrieved SLA information (IDS,

AA, page 1, lines 30-32 and page 2, lines 1-2). However, APA does not explicitly teach:

a plurality of service level agreements (SLAs) currently being serviced by service

provider system resources.

10.   In the same field of endeavor, Kiremidjian teaches, (page 4, ¶0059) plurality of

SLA's.

11.   It would have been obvious to one of ordinary skill in the networking art at the

time the applicant's invention was made to combine Kiremidjian's teachings of plurality

of SLA's with the teachings of APA, for the purpose of (see Kiremidjian, page 2, ¶0017).

APA provides motivation to do so, by providing the ability to manage performance and

availability levels of monitored service elements (see IDS, AA, page 1, lines 2-7).

Claim Rejections - 35 USC § 103

12.   Regarding Claim 1, APA-Kiremidjian, disclose the invention as substantially

claimed. However, APA-Kiremidjian do not explicitly teach: reallocating service provider

system resources from applications associated with the minimum penalty SLA to

applications associated with the first SLA.

13.   In the same field of endeavor, Chidambaran teaches, (page 3, ¶0043)

reallocation of resources.

14.   It would have been obvious to one of ordinary skill in the networking art at the

time the applicant's invention was made to combine Chidambaran's teachings as

explained above with the teachings of APA-Kiremidjian, for the purpose of (see

Chidambaran, page 2, ¶0027). APA provides motivation to do so, by providing the

ability to manage performance and availability levels of monitored service elements (see

IDS, AA, page 1, lines 2-7).

15.   Regarding Claim 6, ARA further discloses, determining whether a breach of a

first SLA is imminent includes using a prediction engine to generate a prediction of

whether the first SLA will be breached based on monitored metrics of a service provider

system (IDS, AA, page 5, lines 23-24).

16.   Regarding Claim 7, ARA further discloses, the prediction engine is a trend

analysis algorithm associated with a service level management system (IDS, AD, page

4, lines 14-19).

17.   Regarding Claim 8, ARA further discloses, if it is determined that a breach of a

first SLA is not imminent, allocation of service provider system resources is performed

in a default manner (IDS, AD, page 4, lines 9-13).

18.   Claim 9, lists all the same elements of claim 1, but in a computer program

product form rather than a method form. Therefore, the supporting rationale of the

rejection to claim 1 applies equally as well to claim 9.

19.   Claim 14, lists all the same elements of claim 6, but in a computer program

product form rather than a method form. Therefore, the supporting rationale of the

rejection to claim 6 applies equally as well to claim 14.

20.   Claim 15, lists all the same elements of claim 7, but in a computer program

product form rather than a method form. Therefore, the supporting rationale of the

rejection to claim 7 applies equally as well to claim 15.

21.   Claim 16, lists all the same elements of claim 8, but in a computer program

product form rather than a method form. Therefore, the supporting rationale of the

rejection to claim 8 applies equally as well to claim 16.

22.   Claim 17, lists all the same elements of claim 1, but in an apparatus form rather

than method form. Therefore, the supporting rationale of the rejection to claim 1 applies

equally as well to claim 17.

Claim Rejections - 35 USC § 103

23.   Claims 2, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over

APA-Kiremidjian-Chidambaran as applied to claim 1, 9 above and further in view of

Laye et al. (Laye) US PG Pub. No. 2003/0120771.

24.   Regarding Claim 2, APA-Kiremidjian-Chidambaran, disclose the invention as

substantially claimed. However, APA-Kiremidjian-Chidambaran do not explicitly teach:

information from one or more Extensible Markup Language (XML) documents in an SLA

storage system.

25.   In the same field of endeavor, Laye teaches, (page 4, ¶0062) transferred

information including various types of SLA events in Extensible Markup Language

(XML).

26.   It would have been obvious to one of ordinary skill in the networking art at the

time the applicant's invention was made to combine Laye's teachings as explained

above with the teachings of APA-Kiremidjian-Chidambaran, for the purpose of (see

Laye, page 1, ¶0013). APA provides motivation to do so, by providing the ability to

manage performance and availability levels of monitored service elements (see APA,

page 1, lines 2-7).

27.   Claim 10, lists all the same elements of claim 2, but in a computer program

product form rather than a method form. Therefore, the supporting rationale of the

rejection to claim 2 applies equally as well to claim 10.

Claim Rejections - 35 USC § 103

28.   Claims 3-5, 11-13, 18-20 are rejected under 35 U.S.C. 103(a) as being

unpatentable over APA-Kiremidjian-Chidambaran as applied to claims 1, 9, 17 above

and further in view of Chaddha et al. (Chaddha) US PG Pub. No. 2006/0293942.

29.   Regarding Claim 3, APA-Kiremidjian-Chidambaran, disclose the invention as

substantially claimed. However, APA-Kiremidjian-Chidambaran do not explicitly teach:

SLA information includes one or more penalties associated with each of the SLAs.

30.   In the same field of endeavor, Chaddha teaches, (page 7, ¶0068, lines 14-19 &

¶0070) information associating penalties to SLAs.

31.   It would have been obvious to one of ordinary skill in the networking art at the

time the applicant's invention was made to combine Chaddha's teachings as explained

above with the teachings of APA-Kiremidjian-Chidambaran, for the purpose of (see

Chaddha, page 1, ¶0011). APA provides motivation to do so, by providing the ability to

manage performance and availability levels of monitored service elements (see APA,

page 1, lines 2-7).

32.   Regarding claims 4, 5 the limitations of these claims have already been

addressed above.

33.   Claim 11, lists all the same elements of claim 3, but in a computer program

product form rather than a method form. Therefore, the supporting rationale of the

rejection to claim 3 applies equally as well to claim 11.

34.   Claim 12, lists all the same elements of claim 4, but in a computer program

product form rather than a method form. Therefore, the supporting rationale of the

rejection to claim 4 applies equally as well to claim 12.

35.   Claim 13, lists all the same elements of claim 5, but in a computer program

product form rather than a method form. Therefore, the supporting rationale of the

rejection to claim 5 applies equally as well to claim 13.

36.   Claim 18, lists all the same elements of claim 3, but in a computer program

product form rather than a method form. Therefore, the supporting rationale of the

rejection to claim 3 applies equally as well to claim 18.

37.   Claim 19, lists all the same elements of claim 4, but in a computer program

product form rather than a method form. Therefore, the supporting rationale of the

rejection to claim 4 applies equally as well to claim 19.

38.   Claim 20, lists all the same elements of claim 5, but in a computer program

product form rather than a method form. Therefore, the supporting rationale of the

rejection to claim 5 applies equally as well to claim 20.

Response to Arguments

39.   Applicant's arguments filed on 1/10/2008 have been carefully considered but they are not deemed fully persuasive. However, because there exists the likelihood of future presentation of this argument, the Examiner thinks that it is prudent to address applicant's main point of contention. Applicant's arguments include:

A. Applicant argues that the feature of "minimum penalty determination" is missing from the APA as related to claim 1.

B. Applicant argues that the feature of "there is no description of any type minimum penalty SLA being used in resource allocation" is missing from Chidambaran as related to claim 1.

C. Applicant argues that the feature of "if it is determined that a breach of a first SLA is not imminent, allocation of service provider system resources is performed in a default manner" is missing from APA as related to claim 8.

D. Applicant argues that the feature of

a. identifying a lowest cost penalty from the one or more penalties associated with each SLA of the plurality of SLAs;

b. comparing the lowest cost penalty from the one or more penalties associated with each SLA of the plurality of SLAs to a penalty associated with the first SLA; and

c. selecting an SLA associated with either the lowest cost penalty from the one or more penalties associated with each SLA of the plurality of

SLAs or the first SLA as a minimum penalty SLA based on the

comparison

is missing from the APA as related to claim 1.

E. Applicant argues that the feature of "retrieving system resource allocation

information" is missing from the combination of teachings of APA-Kiremidjian-

Chidamabran-Chadha as related to claim 4.

40.   As to "Point A", it is the Examiner's position that APA discloses (AA, page 1-2)

IBM Tivoli SLA advisor correlates metrics from multiple IT infrastructure components

and translates the results in to meaningful Service Level reports. These reports not only

provide details about SLAs' but also provides details about service level management

from customers to components. It is obvious to one of ordinary skill in the networking

art that minimum penalty determination is nothing but an elementary component of the

aforementioned detailed reporting capabilities. Thus it is the Examiners position that the

35 USC 103 rejection is proper.

41.   As to "Point B", it is the Examiner's position that Chidambaran teaches (page 3,

¶0043) allocation of resources between applications associated with SLA's and as

explained above, APA discloses (AA, page 1-2) the minimum penalty SLA and

applications associated with it. Therefore the combination of APA and Chidambaran,

disclose the invention substantially as claimed. Thus it is the Examiners position that the

35 USC 103 rejection is proper.

42.   As to "Point C", it is the Examiner's position that APA discloses (AD, page 4,

lines 9-13) IBM Tivoli SLA advisor alerts and thus alters the allocated system resources

when a breach in an SLA is imminent. It is obvious to one of ordinary skill in the

networking art that if the breach is not imminent then no alerts are generated and that

the resource allocation would be performed in a default manner as opposed to a

particular (non-default) manner. Therefore contrary to applicant's allegation that "a

teaching of actions that occur in response to ac actual SLA term violation cannot teach

actions that occur when a SLA term violation is not imminent", a teaching of action does

indicate that if such action does not take place the default (non-particular) conditions

prevail. Thus it is the Examiners position that the 35 USC 103 rejection is proper.

43.   As to "Point D", it is the Examiner's position that Chaddha teaches (page 7,

¶0068, lines 14-19 & ¶0070) information associating SLA's with penalties. The ability to

determine the minimum penalty SLA amongst a plurality of SLA's was covered in Claim

1. Thus by combining that which was disclosed by the combination of references of

Claim 1 and Chaddha's association of a cost with the penalties in association with the

information from SLA's in conjunction with the detailed management reports that are

based on the SLA's, it is obvious to one of ordinary skill in the networking art to

conclude that the limitations of claim 3 are disclosed substantially as claimed. As

explained above, it is obvious to one of ordinary skill in the networking art that the

lowest cost penalty from the one or more penalties associated with each SLA from the

plurality of SLA's as well as comparing the lowest cost penalty from the one or more

penalties associated with each SLA of the plurality of SLA's to a penalty associated with

the first SLA and selecting an SLA associated with either the lowest cost penalty from

the one or more penalties associated with each SLS of the plurality of SLA's or the first

SLA as a minimum penalty SLA based on the comparison may be provided and/or

derived and/or extracted from the detailed management reports of IBM Tivoli system.

Thus it is the Examiners position that the 35 USC 103 rejection is proper.

44.   As to "Point E", it is the Examiner's position that in order for IBM Tivoli SLA

advisor to operate properly, it has to retrieve service provider system resource

allocation information as is evident by APA (AC, page 3, col2, lines 13-15) which recites

that IT organizations have become "internal' service providers to their constituencies.

Therefore the retrieval of system provider system resource allocation information is no

different than the retrieval of the system resources of the IT organization which has

been addressed by the capabilities of IBM Tivoli SLA advisors' detailed management

report generator. Thus it is the Examiners position that the 35 USC 103 rejection is

proper.

Prior Art of Record

The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure. Please refer to form PTO-892 (Notice of Reference Cited) for a list of

relevant prior art.

Conclusion

45.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to SAEED S. MIRZADEGAN whose telephone number is

(571)270-3044. The examiner can normally be reached on M-F 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, William Vaughn can be reached on 571-272-3922. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. S. M./
Examiner, Art Unit 2144

/William C. Vaughn, Jr./
Supervisory Patent Examiner, Art Unit 2144